

Multiservice Tactics, Techniques, and Procedures for the Joint Surveillance Target Attack Radar System

Executive Summary

Overview

With the demise of the cold war, bipolar threat, today's military must be prepared to respond around the world to crisis that span the spectrum from peace-keeping operations to war. With no clearly defined threat, we must be able to quickly react to any crisis, setting the conditions that allow accomplishment of our objectives. Inherent in this task is the requirement to attain dominant battlespace awareness. The commander that has the ability to determine the adversary's disposition, composition, and intent has the distinct advantage of being able to array his forces in a manner that allows him to mass effects at decisive points on the battlefield. As evidenced in Operation Desert Storm and Operation Joint Endeavor, Joint STARS provides this capability to the joint force commander (JFC).

The Army and the Air Force have long recognized the need for an all-weather system capable of detecting, locating, tracking, and classifying surface targets. Early efforts led the Army to design the Stand-off Target Acquisition System (SOTAS) to fulfill this need, while the Air Force developed the PAVE MOVER system to accomplish the same goal. Recognizing overlap in the programs in 1982, the Office of the Secretary of Defense directed that the two programs be combined, which led to the development of Joint STARS.

Joint STARS has proven its capabilities while still under development. During both Operation Desert Storm and Operation Joint Endeavor, Joint STARS prototypes were deployed to support operations. Joint STARS' performance in Operation Desert Storm led General McPeak, then Air Force Chief of Staff, to proclaim, "We will never again want to fight without a Joint STARS kind of system." In Bosnia-Herzegovina, Joint STARS allowed coalition forces to monitor the belligerents adherence to the Dayton Peace Accords and significantly increased the coalition commanders' situational awareness.

Joint STARS is a "system of systems" containing both airborne and ground-based segments. The E-8C, a militarized Boeing 707-300 aircraft, houses the airborne radar, operations and control, and communication subsystems, which are designed to support and be interoperable with existing and planned joint command, control, communications, computers, and intelligence (C4I) systems. The ground-based segment consists of a family of ground station module (GSM) variants. The GSM receives the E-8C's complete radar data in near real time (NRT). The GSM processes, stores, and displays the radar data and allows the operators to manipulate the data to attain situational awareness. The

operator then disseminates the data to command and control (C2) and fire support nodes to facilitate decision making and targeting.

The primary mission of the Joint STARS is the dedicated support of ground component commanders under the overall direction of the JFC. Properly employed, the system is capable of performing intelligence support, attack support, battle management functions, and support to special missions as well. The unique capabilities of the system, coupled with its flexibility and responsiveness, make Joint STARS a true force multiplier that can be leveraged to maximize the effectiveness of the joint force.

Joint STARS System Description

Chapter I introduces the Joint STARS mission and describes the system components, their capabilities, and their limitations. Operating parameters for the E-8C and its subsystems are provided to enable planners to integrate Joint STARS into the campaign plan. Discussion of the GSMs includes a description of each of the different variants, their interface with other systems, and their capabilities and limitations.

Joint STARS Missions

Chapter II details the missions that Joint STARS can be tasked to support and describes the optimum employment options to enable the system to perform these missions. Joint STARS can support missions that include intelligence support, attack support, battle management, and special missions. These missions span the spectrum of warfare from military operations other than war (MOOTW) to major regional conflicts (MRCs) conducted in a joint operational environment.

Employment Planning and Mission Tasking

Chapter III outlines employment planning and mission tasking considerations for Joint STARS. The discussion includes threat considerations, high value airborne assets (HVAA) protection and changes to mission taskings, radar priorities, coverage areas, or unit support. Additionally, the chapter details the information and products required from supported unit(s) for Joint STARS mission support planning.

Classification

This executive summary is unclassified. The publication itself is classified **SECRET**.